

Serial No. 10/044,279

Docket No.: 55476US005

Amendments to the Claims

A detailed list of all claims under examination is set out below. Please amend claims 1 - 15, 17 - 21 and 23 as shown below in marked form:

1. (currently amended): A method for improving the uniformity of a wet coating on a substrate having a direction of motion comprising:
 - A1) applying to the substrate a wet coating,
 - A2) contacting the applied coating at a first position with wetted surface portions of at least two rotating wire-wound pick-and-place coating rods and
 - A3) re-contacting the coating with such wetted surface portions at a different position or positions on the substrate that are different from the first position and not periodically related to one another with respect to their distance from the first position; or
 - B1) applying to the substrate a discontinuous or deliberately uneven wet coating whose caliper spatially varies in the direction of motion and
 - B2) contacting and re-contacting the applied coating with wetted surface portions of at least two rotating wire-wound pick-and-place rods;whereby the coating caliper uniformity is improved in the direction of motion.
2. (currently amended): A method according to claim 1 wherein the ~~coating~~ rods do not have the same period of contact with the substrate.
3. (currently amended): A method according to claim 2 wherein the rotational periods of the ~~coating~~ rods are not periodically related.
4. (currently amended): A method according to claim 1 comprising at least three ~~coating~~ rods.
5. (currently amended): A method according to claim 4 wherein the ~~coating~~ rods all have different periods of rotation.

Serial No. 10/044,279

Docket No.: 55476US005

6. (currently amended): A method according to claim 4 wherein the ~~coating~~ rods have a progression of smaller and smaller wire diameters.
7. (currently amended): A method according to claim 1 comprising at least five ~~coating~~ rods.
8. (currently amended): A method according to claim 1 comprising at least ten ~~coating~~ rods.
9. (currently amended): A method according to claim 1 comprising applying to the substrate a discontinuous coating whose caliper spatially varies in the direction of motion and wherein the ~~coating~~ rods have the same period of contact with the substrate.
10. (currently amended): A method according to claim 9 comprising at least four ~~coating~~ rods.
11. (currently amended): A method according to claim 9 comprising at least ten ~~coating~~ rods.
12. (currently amended): A method according to claim 1 wherein ~~the substrate has a direction of motion and~~ the direction of rotation of at least one of the ~~coating~~ rods is the same as the direction of substrate motion.
13. (currently amended): A method according to claim 12 wherein the direction of rotation of at least two of the ~~coating~~ rods is the same as the direction of substrate motion.
14. (currently amended): A method according to claim 12 wherein all the ~~coating~~ rods rotate in the same direction as and at substantially the same speed as the substrate.
15. (currently amended): A method according to claim 12 wherein the substrate comprises a web and the ~~coating~~ rods are undriven, bear against the substrate and are rotated by the motion of the substrate.

Serial No. 10/044.279

Docket No.: 55476US005

16. (original): A method according to claim 1 wherein the substrate comprises a sheet mounted on a rotating support.
17. (currently amended): A method according to claim 1 further comprising changing the period of rotation of a coating rod during its operation to reduce or minimize coating defects.
18. (currently amended): A method according to claim 1 further comprising operating a coating rod at a fixed or variable surface speed differential relative to the surface ~~speed of the support~~ substrate.
19. (currently amended): A method ~~according to claim 18~~ for improving the uniformity of a wet coating on a substrate comprising contacting the coating at a first position with wetted surface portions of at least two rotating wire-wound coating rods and re-contacting the coating with such wetted surface portions at a different position or positions on the substrate and further comprising operating a coating rod at a fixed or variable surface speed differential relative to the substrate, wherein the surface speed differential is varied sinusoidally.
20. (currently amended): A method according to claim 1 ~~wherein comprising applying to the substrate initially has~~ a discontinuous coating whose caliper spatially varies in the direction of motion.
21. (currently amended): A method according to claim 20 ~~wherein comprising applying the coating comprises as~~ a pattern of cross web stripes.
22. (original): A method according to claim 21 further comprising selecting or changing the stripe width to produce a more uniform coating.
23. (currently amended): A method according to claim 20 ~~wherein comprising applying the coating comprises as~~ a pattern of drops.
24. (original): A method according to claim 1 wherein the coating is converted from a voided coating to a void-free continuous coating.

Serial No. 10/044,279Docket No.: 55476US005

25. (original): A method according to claim 1 wherein the coating is converted to have an average caliper less than 5 micrometers.
26. (original): A method according to claim 1 wherein the coating comprises one or more lanes of coating on the substrate.
27. (original): A method according to claim 26 wherein the coating comprises two or more lanes containing the same or two or more differing formulations separated by a lane or lanes without coating.
28. (original): A method according to claim 26 wherein the coating comprises two or more adjacent lanes containing two or more differing formulations.
29. (withdrawn): A device comprising two or more rotating wire-wound coating rods that periodically contact and re-contact a wet coating at different positions on a substrate, wherein the periods of the devices are selected so that the uniformity of the coating is improved.
30. (withdrawn): A device according to claim 29 wherein the coating rods do not have the same period of contact with the substrate.
31. (withdrawn): A device according to claim 30 wherein the rotational periods of the coating rods are not periodically related.
32. (withdrawn): A device according to claim 29 comprising at least three coating rods.
33. (withdrawn): A device according to claim 32 wherein the coating rods all have different periods of rotation.
34. (withdrawn): A device according to claim 32 wherein the coating rods have a progression of smaller and smaller wire diameters.
35. (withdrawn): A device according to claim 29 comprising at least five coating rods.

Serial No. 10/044,279Docket No.: 55476US005

36. (withdrawn): A device according to claim 29 comprising at least ten coating rods.
37. (withdrawn): A device according to claim 29 wherein the coating rods have the same period of contact with the substrate.
38. (withdrawn): A device according to claim 37 comprising at least four coating rods.
39. (withdrawn): A device according to claim 37 comprising at least ten coating rods.
40. (withdrawn): A device according to claim 29 wherein the substrate has a direction of motion and the direction of rotation of at least one of the coating rods is the same as the direction of substrate motion.
41. (withdrawn): A device according to claim 40 wherein the direction of rotation of at least two of the coating rods is the same as the direction of substrate motion.
42. (withdrawn): A device according to claim 40 wherein all the coating rods rotate in the same direction as and at substantially the same speed as the substrate.
43. (withdrawn): A device according to claim 40 wherein the substrate comprises a web and the coating rods are undriven, bear against the substrate and are rotated by the motion of the substrate.
44. (withdrawn): A device according to claim 29 wherein the substrate comprises a sheet mounted on a rotating support.
45. (withdrawn): A device according to claim 29 wherein the period of rotation of a coating rod can be changed to reduce or minimize coating defects.
46. (withdrawn): A device according to claim 29 wherein a coating rod can be operated at a fixed or variable surface speed differential relative to the surface speed of the support.
47. (withdrawn): A device according to claim 46 wherein the surface speed differential is varied sinusoidally.

Serial No. 10/044,279Docket No.: 55476US005

48. (withdrawn): A device according to claim 29 wherein the coating rods can contact and re-contact one or more lanes of coating on the substrate.
49. (withdrawn): A device according to claim 48 wherein the coating rods can contact and re-contact two or more lanes containing the same or two or more differing formulations separated by a lane or lanes without coating.
50. (withdrawn): A device according to claim 48 wherein the coating rods can contact and re-contact two or more adjacent lanes containing two or more differing formulations.
51. (withdrawn): A coating apparatus comprising a coating station that applies an uneven coating to a substrate and an improvement station comprising a device according to claim 29.
52. (withdrawn): A coating apparatus according to claim 51 wherein the coating station applies a discontinuous coating.
53. (withdrawn): A coating apparatus according to claim 51 wherein the coating station applies a pattern of stripes.
54. (withdrawn): A coating apparatus according to claim 51 wherein the stripe width can be selected or changed to produce a more uniform coating.
55. (withdrawn): A coating apparatus according to claim 51 wherein the coating station applies a pattern of drops.
56. (withdrawn): A coating apparatus according to claim 51 wherein the coating is converted from a voided coating to a void-free continuous coating.
57. (withdrawn): A coating apparatus according to claim 51 wherein the coating is converted to have an average caliper less than 5 micrometers.
58. (withdrawn): A coating apparatus comprising a coating station for applying an uneven coating to a first substrate, an improvement station comprising a device

Serial No. 10/044,279

Docket No.: 55476US005

according to claim 29, and a transfer station for transferring the coating from the first substrate to a second substrate.